

=> fil reg

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STRUCTURE FILE UPDATES: 2 DEC 2010 HIGHEST RN 1255039-30-5  
DICTIONARY FILE UPDATES: 2 DEC 2010 HIGHEST RN 1255039-30-5

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TSCA INFORMATION NOW CURRENT THROUGH June 26, 2010.

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=> fil hcap

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FILE COVERS 1907 - 3 Dec 2010 VOL 153 ISS 24  
FILE LAST UPDATED: 2 Dec 2010 (20101202/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2010  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2010

HCAplus now includes complete International Patent Classification (IPC)  
reclassification data for the fourth quarter of 2010.

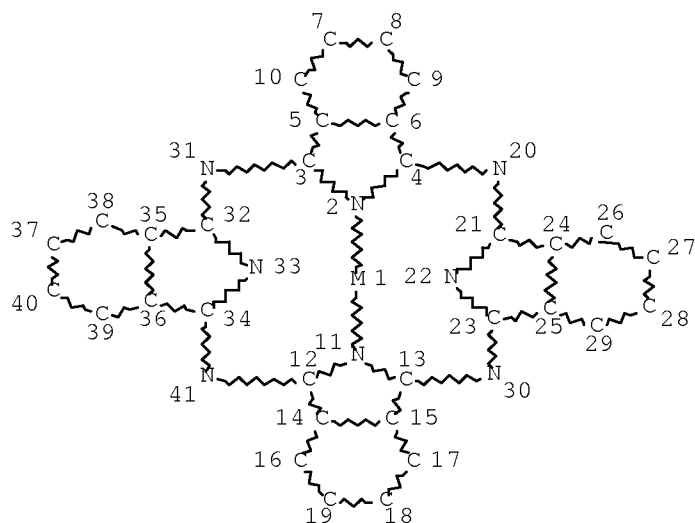
CAS Information Use Policies apply and are available at:

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This file contains CAS Registry Numbers for easy and accurate  
substance identification.

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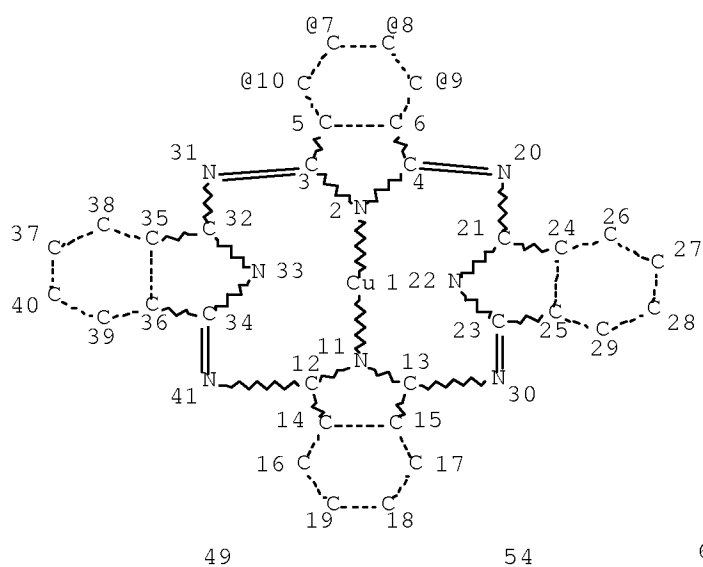
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L2 STR



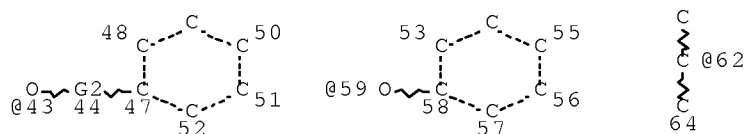
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
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NUMBER OF NODES IS 41

STEREO ATTRIBUTES: NONE  
L4 33153 SEA FILE=REGISTRY SSS FUL L2  
L9 STR



OH @42 G1 @46  
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C  
CH  
@60



Page 2-A

VAR G1=42/43/59

VAR G2=CH2/60/62

VPA 46-9/8/7/10 U

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

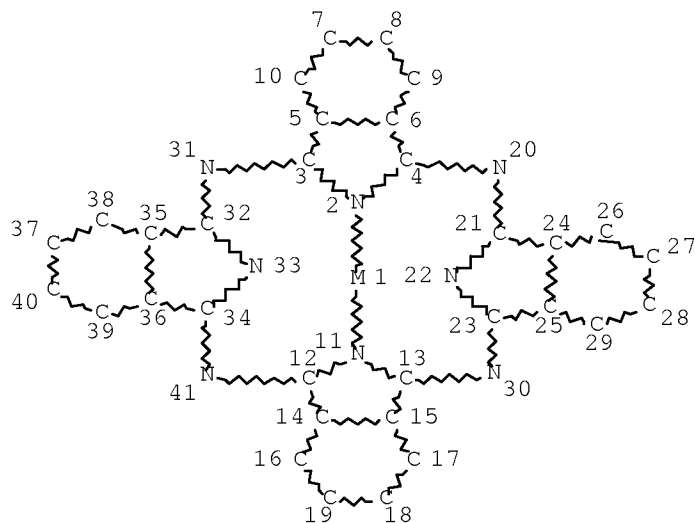
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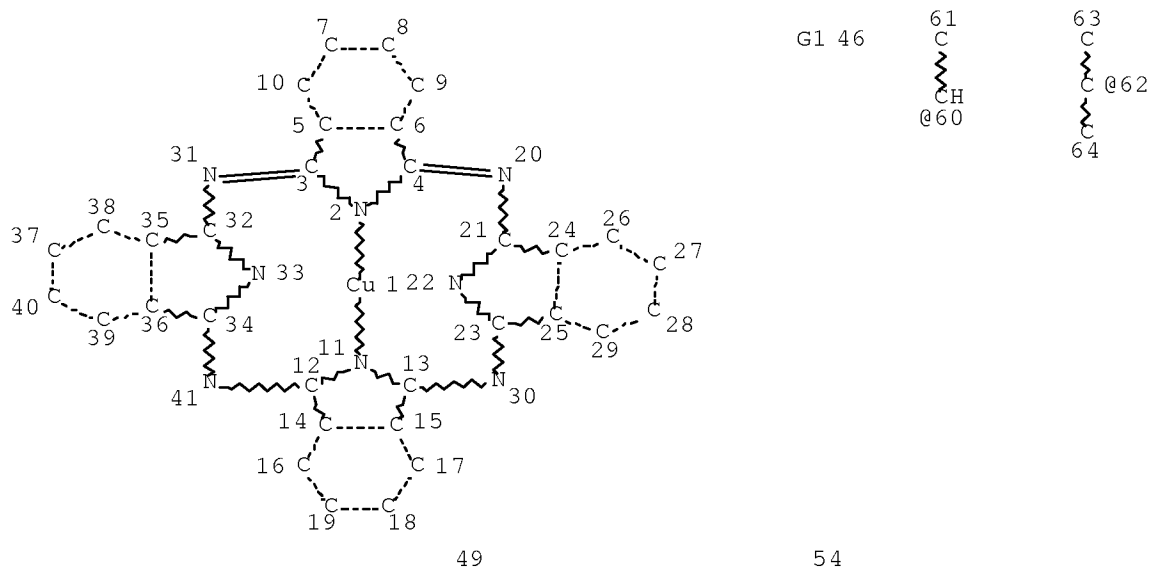
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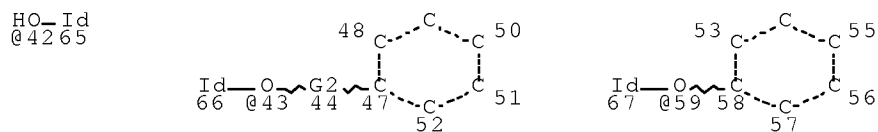
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L16 STR



Page 1-A



Page 2-A

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

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STEREO ATTRIBUTES: NONE

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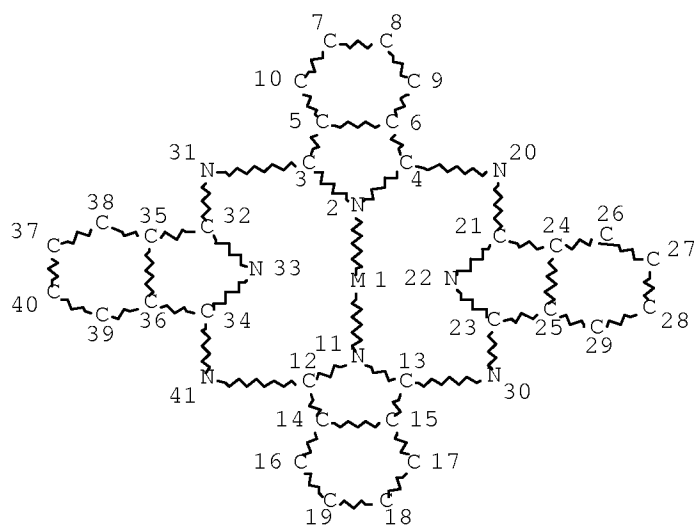
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0 ANSWERS

SEARCH TIME: 00.00.01

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L2 STR



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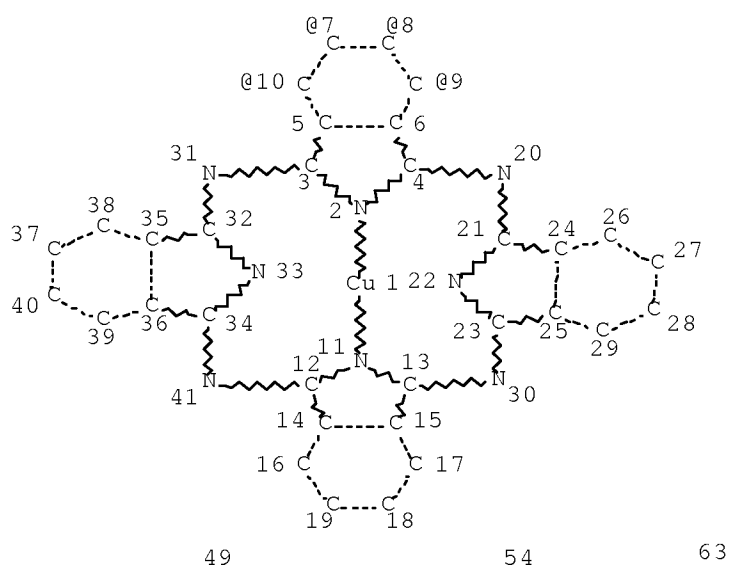
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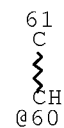
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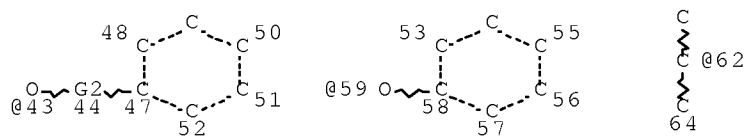
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G1 @46





Page 2-A

VAR G1=42/43/59

VAR G2=CH2/60/62

VPA 46-9/8/7/10 U

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DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

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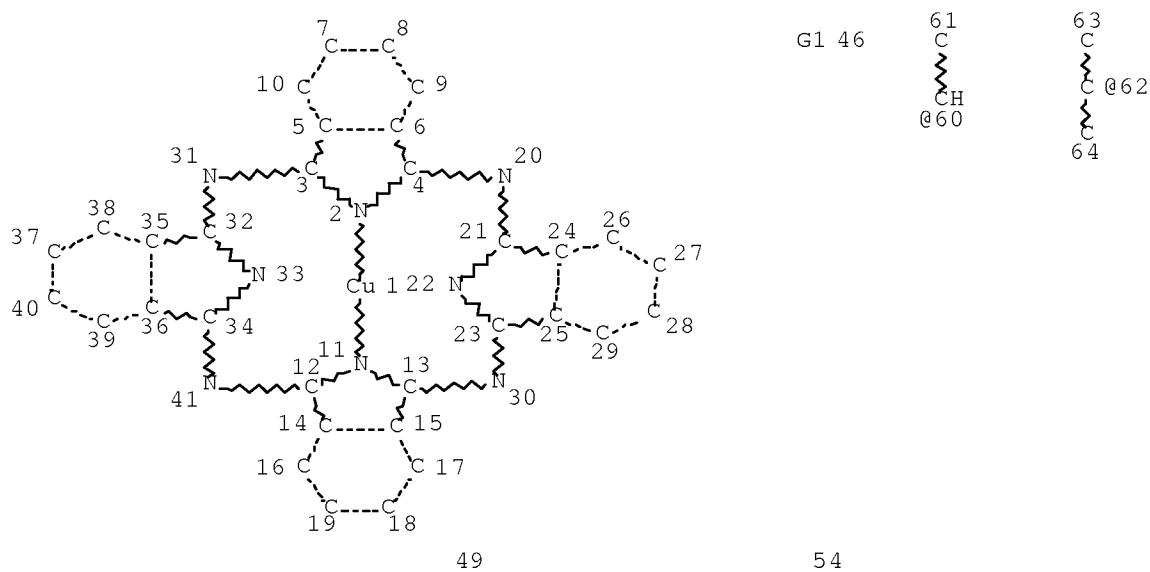
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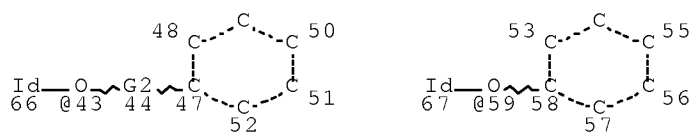
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L13 STR



Page 1-A

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Page 2-A

VAR G1=42/43/59

VAR G2=CH2/60/62

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 66

STEREO ATTRIBUTES: NONE

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 L19 QUE SPE=ON ABB=ON PLU=ON PHOTORESIST? OR PHOTO(2A)RES  
 IST? OR RESIST OR RESISTS  
 L20 241 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L12  
 L21 4 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L20 AND L19  
 L22 124 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L15  
 L23 3 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L22 AND L19  
 L24 6 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L21 OR L23

=> d ibib abs hitstr hitind l24 1-6

L24 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2010:1309264 HCAPLUS Full-text

DOCUMENT NUMBER: 153:532818

TITLE: Manufacture of color curable compositions useful  
 for color filters

INVENTOR(S): Mizukawa, Hiroki; Ishiwata, Yasuhiro; Ito,  
 Junichi; Murakami, Yosuke; Kanna, Shinichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 81pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

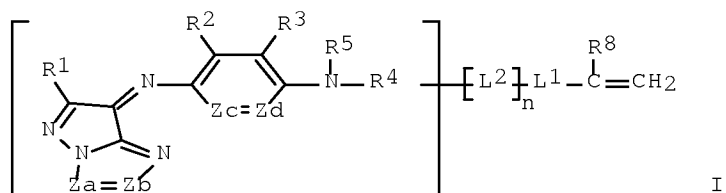
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2010235673	A	20101021	JP 2009-82531	200903 30
PRIORITY APPLN. INFO.:			JP 2009-82531	200903 30

GI



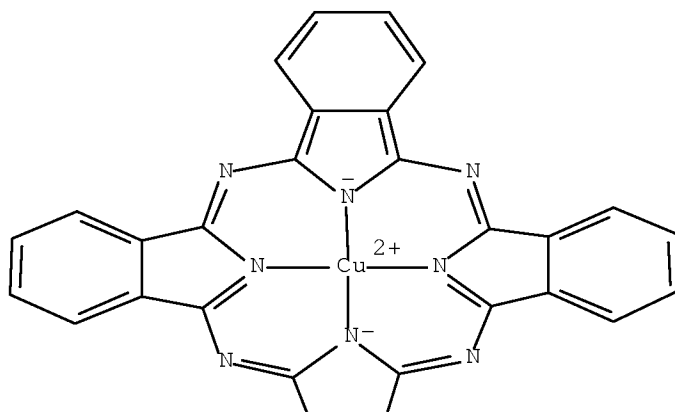
AB The compns. contain azo methine coloring monomer I (R1-3 = H, monovalent groups; R4,R5 = H, alkyl group, etc.; Za.apprx.Zd = :N- or :C(R6) group where R6 = H, monovalent group; R8 = H, halogen, etc.; L1 = O or other linking group; L2 = linking group; n = 0, 1) which was synthesized and polymerized with unsatd. monomers.

IT 1251941-56-6 1251941-94-2  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (co-colorant; manufacture of color curable compns. useful for color filters)

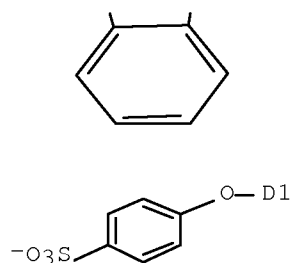
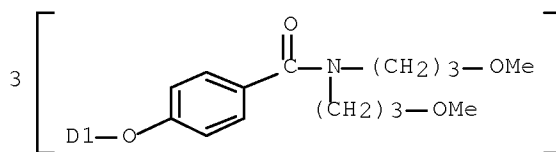
RN 1251941-56-6 HCAPLUS

CN Cuprate(1-), [4-[[C,C,C-tris[4-[[bis(3-methoxypropyl)amino]carbonyl]phenoxy]-29H,31H-phthalocyanin-1-yl-κN29,κN30,κN31,κN32]oxy]benzenesulfonato(3-)]-, potassium (1:1) (CA INDEX NAME)

PAGE 1-A



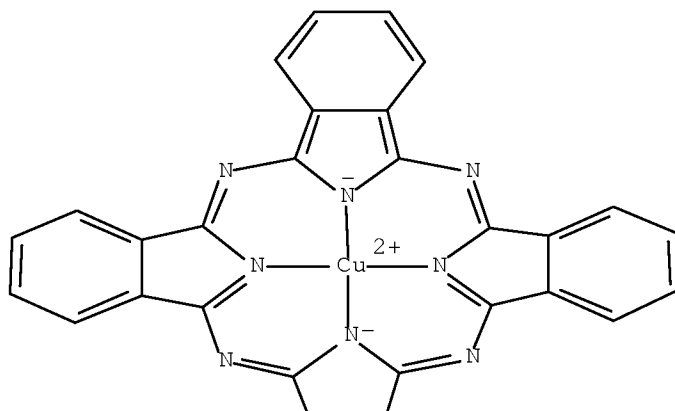
PAGE 2-A

● K<sup>+</sup>

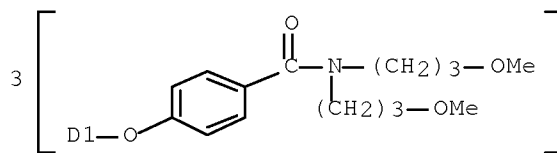
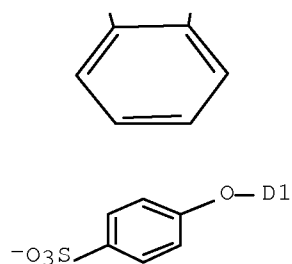


RN 1251941-94-2 HCAPLUS  
 CN Cuprate(1-), [4-[[C,C,C-tris[4-[[bis(3-methoxypropyl)amino]carbonyl]phenoxy]-29H,31H-phthalocyanin-1-yl-kN29,kN30,kN31,kN32]oxy]benzenesulfonato(3-)]-, sodium (1:1) (CA INDEX NAME)

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PAGE 3-A



C09B0067-20 [I,A]; C09B0067-42 [I,A]; C09B0047-04 [I,A]; C09B0067-22 [I,A]; C09B0067-00 [I,C\*]  
 CC 42-12 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 41, 74  
 IT Liquid crystal displays  
 Optical filters  
 Positive ~~photoresists~~  
 (manufacture of color curable compns. useful for color filters)  
 IT 1203659-41-9 1206198-04-0 ~~1251941-56-6~~ 1251941-57-7  
 1251941-58-8 1251941-59-9 1251941-61-3 1251941-62-4  
 1251941-63-5 1251941-65-7 1251941-66-8 1251941-93-1  
~~1251941-94-2~~  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (co-colorant; manufacture of color curable compns. useful for color filters)  
 IT 693827-24-6, Benzyl methacrylate; formaldehyde; 2-hydroxyethyl methacrylate; melamine; methacrylic acid copolymer  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (pos.-working ~~photoresists~~; manufacture of color curable compns. useful for color filters)

L24 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:1196569 HCAPLUS Full-text

DOCUMENT NUMBER: 151:414708

TITLE: Phthalocyanine-based pigments treated with phthalocyanine compounds, their dispersions, ~~photoresists~~ containing them, color filters manufactured from them, and their manufacture

INVENTOR(S): Nagata, Yuzo; Fujimaki, Kazuhiro; Nakagawa, Mikio

PATENT ASSIGNEE(S): Fujifilm Corporation, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 75pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

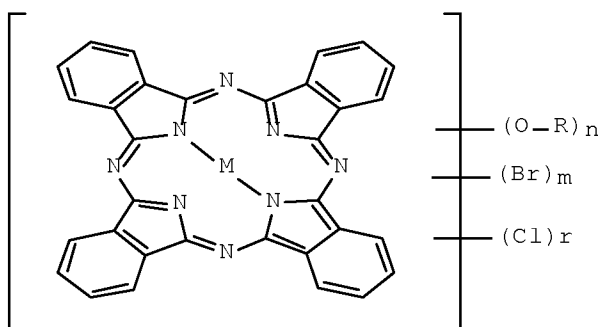
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2009221376	A	20091001	JP 2008-68188	20080317
PRIORITY APPLN. INFO.:			JP 2008-68188	20080317

OTHER SOURCE(S): MARPAT 151:414708

GI



I

AB Title pigments are manufactured by soft milling phthalocyanine-based pigments with H<sub>2</sub>O-soluble inorg. salts in H<sub>2</sub>O-soluble organic solvents in the presence of phthalocyanine compds. I (M = divalent metal; R = nonmetal atom monovalent substituent; n = 1-16; m, r = 0-15). The color filters are useful for high-contrast liquid crystal displays (LCD) or solid-state imagers. Preferably, the pigments are selected from C.I. Pigment Blue 15:6, C.I. Pigment Green 36, and C.I. Pigment Green 7. The dispersibility of the pigments is improved by I.

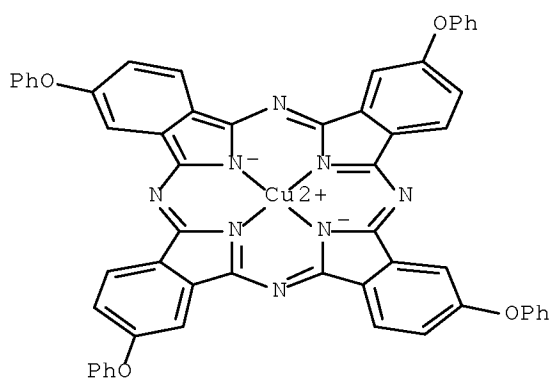
IT 77447-50-8P 169235-79-4P  
1189161-18-9P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)

(surface treating pigment for; phthalocyanine-based  
photoresist pigments treated with phthalocyanine compds.  
for color filters of LCDs and solid-state imagers)

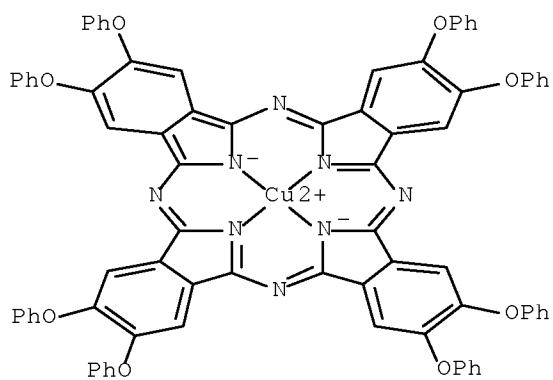
RN 77447-50-8 HCAPLUS

CN Copper, [2,9,16,23-tetraphenoxy-29H,31H-phthalocyaninato(2-)-  
κN29,κN30,κN31,κN32]-, (SP-4-1)- (CA INDEX  
NAME)



RN 169235-79-4 HCAPLUS

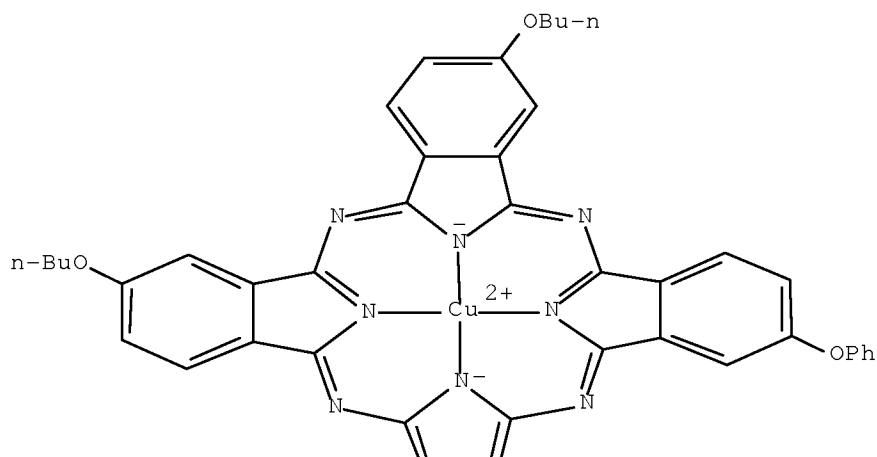
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(CA INDEX NAME)



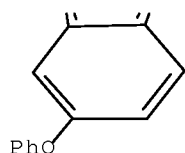
RN 1189161-18-9 HCAPLUS

CN Copper, [2,9-dibutoxy-16,23-diphenoxy-29H,31H-phthalocyaninato(2-)-  
κN29,κN30,κN31,κN32]-, (SP-4-2)- (CA INDEX  
NAME)

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IPCI C09B0067-12 [I,A]; C09B0067-20 [I,A]; C09B0067-46 [I,A]; C09B0067-00  
[I,C\*]; G02B0005-20 [I,A]; G03F0007-004 [I,A]; G02B0005-22 [N,A]  
IPCR C09B0067-00 [I,C]; C09B0067-12 [I,A]; C09B0067-20 [I,A]; C09B0067-46  
[I,A]; G02B0005-20 [I,C]; G02B0005-20 [I,A]; G02B0005-22 [N,C];  
G02B0005-22 [N,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]

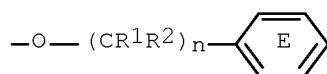
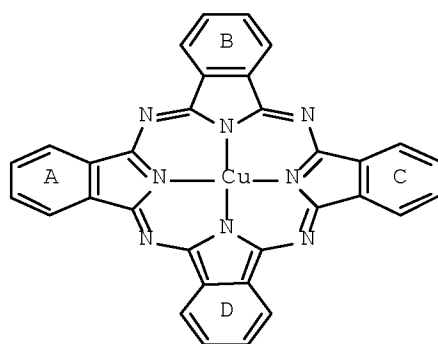
- CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 41
- ST surface treatment phthalocyanine pigment ~~photoresist~~; liq  
crystal display imager color filter pigment
- IT Liquid crystal displays  
(color filters for; phthalocyanine-based ~~photoresist~~  
pigments treated with phthalocyanine compds. for color filters of  
LCDs and solid-state imagers)
- IT Pigments, nonbiological  
(phthalocyanine compound-surface treated; phthalocyanine-based  
~~photoresist~~ pigments treated with phthalocyanine compds.  
for color filters of LCDs and solid-state imagers)
- IT Optical filters  
~~Photoresists~~  
(phthalocyanine-based ~~photoresist~~ pigments treated with  
phthalocyanine compds. for color filters of LCDs and solid-state  
imagers)
- IT 147-14-8, C.I. Pigment Blue 15:6 1328-53-6, C.I. Pigment Green 7  
14302-13-7, C.I. Pigment Green 36  
RL: TEM (Technical or engineered material use); USES (Uses)  
(phthalocyanine compound-surface treated; phthalocyanine-based  
~~photoresist~~ pigments treated with phthalocyanine compds.  
for color filters of LCDs and solid-state imagers)
- IT 91-15-6, Phthalonitrile 38791-62-7, 4-Phenoxyphthalonitrile  
81560-32-9, 4-Butoxyphthalonitrile 147699-63-6,  
4,5-Bisphenoxyphthalonitrile  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(phthalocyanine-based ~~photoresist~~ pigments treated with  
phthalocyanine compds. for color filters of LCDs and solid-state  
imagers)
- IT 1344-67-8, Copper chloride  
RL: RGT (Reagent); RACT (Reactant or reagent)  
(phthalocyanine-based ~~photoresist~~ pigments treated with  
phthalocyanine compds. for color filters of LCDs and solid-state  
imagers)
- IT ~~77447-50-8P~~ 106923-77-7P ~~169235-79-4P~~  
~~1189161-17-8P~~ ~~1189161-18-9P~~  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(surface treating pigment for; phthalocyanine-based  
~~photoresist~~ pigments treated with phthalocyanine compds.  
for color filters of LCDs and solid-state imagers)

L24 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2004:473453 HCAPLUS Full-text  
DOCUMENT NUMBER: 141:44857  
TITLE: Photosensitive resin composition comprising  
halogen-free colorant  
INVENTOR(S): Oka, Hidetaka; Adam, Jean-Marie  
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.  
SOURCE: PCT Int. Appl., 21 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004049070	A2	20040610	WO 2003-EP50849	20031119
WO 2004049070	A3	20040722		
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CA 2507471	A1	20040610	CA 2003-2507471	20031119
AU 2003298293	A1	20040618	AU 2003-298293	20031119
EP 1565789	A2	20050824	EP 2003-796025	20031119
EP 1565789	B1	20091230		
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BR 2003016657	A	20051018	BR 2003-16657	20031119
CN 1717627	A	20060104	CN 2003-80104325	20031119
CN 100549825	C	20091014		
JP 2006508381	T	20060309	JP 2004-554539	20031119
JP 4390707	B2	20091224		
AT 453877	T	20100115	AT 2003-796025	20031119
US 20050282923	A1	20051222	US 2005-535373	20050519
MX 2005005682	A	20050726	MX 2005-5682	20050527
IN 2005CN01406	A	20070803	IN 2005-CN1406	20050624
IN 219755	A1	20080704		
PRIORITY APPLN. INFO.:			EP 2002-406035	A 20021128
			WO 2003-EP50849	W 200311

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
 OTHER SOURCE(S): MARPAT 141:44857  
 GI



I

AB The present invention relates to a photosensitive resin composition for solder ~~resists~~ comprising as a component (A) a green colorant of the formula I (rings A, B, C and D are substituted by hydroxy or by moiety; R, R2 = H, C1-4-alkyl; n = 0-3; ring E = unsubstituted or substituted by C1-6-alkyl, C1-6-alkoxy, hydroxy, NHCOR3, NHSO2, R4 or SO2NHR5; R3, R4, R5 = C1-4-alkyl; Ph); as a component (B) an alkali soluble oligomer or polymer reactive or unreactive; as a component (C) a polymerizable monomer; as a component (D) a photoinitiator; as a component (E) an epoxy compound; and also, if desired, as a component (F) further additives. The photosensitive composition can be used as solder ~~resist~~, etching ~~resist~~ or plating ~~resist~~ in the manufacture of printed circuit boards. The inventive solder ~~resist~~ comprising a single green pigment that maintains qualities required as a green coloring material, such as clear hue, good weather- and heat resistance and that is satisfactory at the same time in the points of environmental pollution, has not been found yet in the present state of the art.

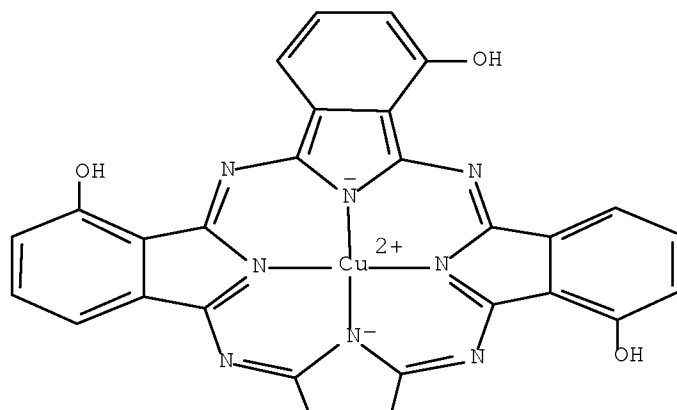
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 227101-11-3 290821-67-9 667865-45-4

RL: TEM (Technical or engineered material use); USES (Uses)  
 (photosensitive resin composition comprising halogen-free colorant)

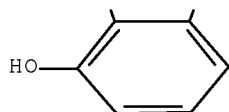
RN 20468-22-8 HCAPLUS

CN Copper, [29H,31H-phthalocyanine-1,8,15,22-tetrolato(2-)-  
 κN29,κN30,κN31,κN32]-, (SP-4-1)-(9CI) (CA  
 INDEX NAME)

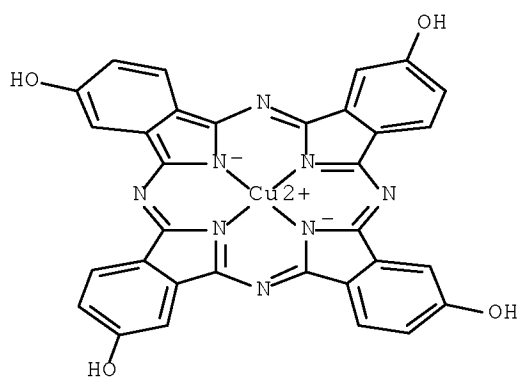
PAGE 1-A



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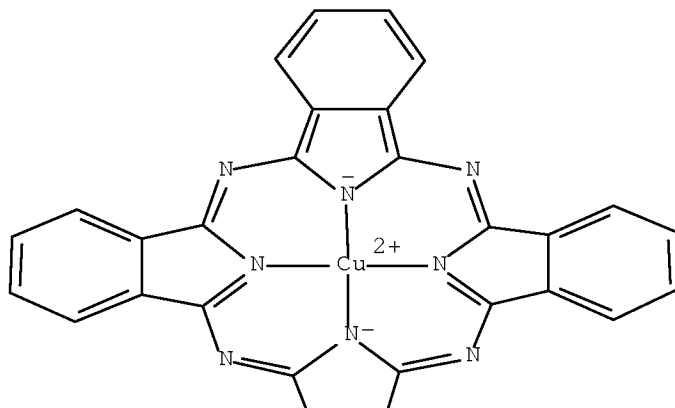
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 INDEX NAME)



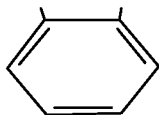
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PAGE 1-A



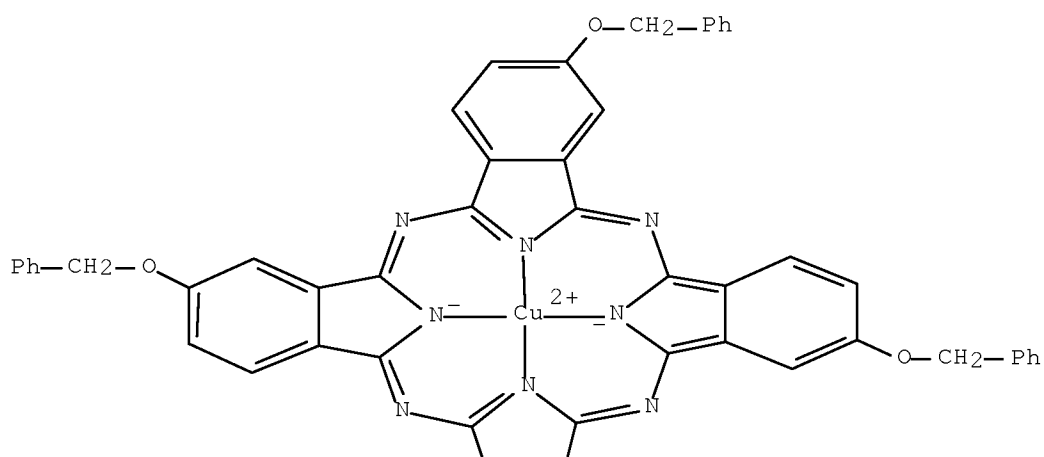
PAGE 2-A



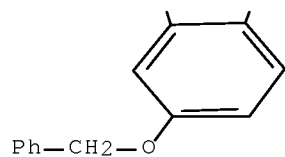
4 ( D1—OH )

RN 227101-11-3 HCAPLUS  
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PAGE 1-A

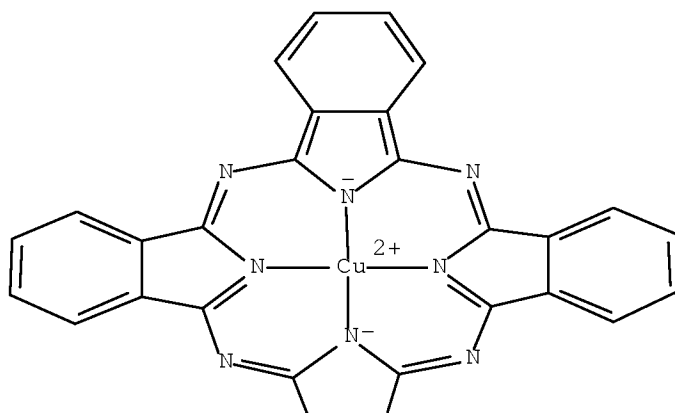


PAGE 2-A

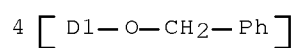
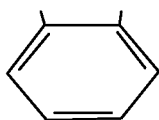


RN 290821-67-9 HCAPLUS  
 CN Copper, [C,C,C,C-tetrakis(phenylmethoxy)-29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]- (9CI) (CA INDEX NAME)

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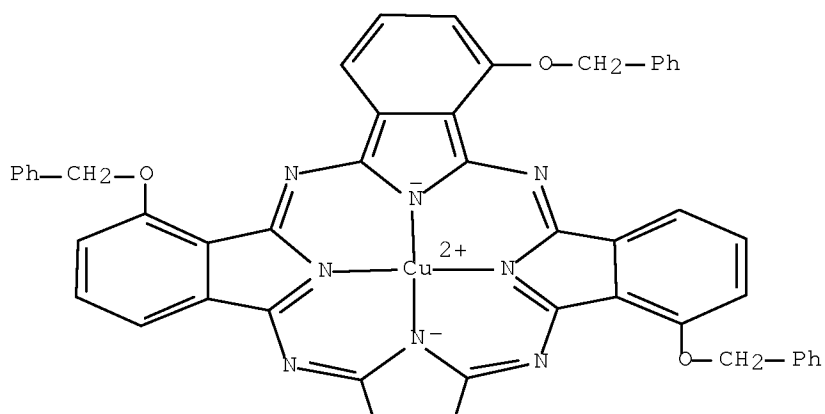


PAGE 2-A

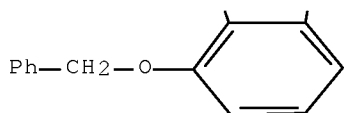


RN 667865-45-4 HCAPLUS  
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PAGE 1-A



PAGE 2-A



IPCI G03F0007-027 [ICM,7]  
 IPCR G03F0007-038 [I,C\*]; G03F0007-038 [I,A]; G03F0007-09 [N,C\*];  
 G03F0007-105 [N,A]; H05K0001-02 [N,C\*]; H05K0001-02 [N,A];  
 H05K0003-00 [N,C\*]; H05K0003-00 [N,A]; H05K0003-28 [I,C\*];  
 H05K0003-28 [I,A]  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and

Other Reprographic Processes)

ST photoresist solder resist printed circuit board  
compn photosensitive resin

IT Solder resists  
(photosensitive resin composition comprising halogen-free colorant)

IT 5495-84-1, Quantacure ITX 20468-22-8  
21707-33-5 29570-58-9, DPHA 29696-46-6  
71868-10-5, Irgacure 907 155575-69-2, GY 1180  
227101-11-3 290821-67-9 667865-45-4  
671791-90-5, EA-6340  
RL: TEM (Technical or engineered material use); USES (Uses)  
(photosensitive resin composition comprising halogen-free colorant)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN  
THE RE FORMAT

L24 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2000:210271 HCAPLUS Full-text  
DOCUMENT NUMBER: 132:252454  
TITLE: Substituted phthalocyanines and their use  
INVENTOR(S): Wolleb, Annemarie; Wolleb, Heinz; De Keyzer,  
Gerardus; Wagner, Barbara  
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.  
SOURCE: PCT Int. Appl., 37 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2000017275	A1	20000330	WO 1999-EP6653	199909 09
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EP 1119590	A1	20010801	EP 1999-969425	199909 09
EP 1119590	B1	20030108		
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AT 230779	T	20030115	AT 1999-969425	199909 09

ES 2189532	T3	20030701	ES 1999-969425	19990909
TW 477791	B	20020301	TW 1999-116202	19990920
WO 2000039221	A1	20000706	WO 1999-EP10006	19991216
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AT 225830	T	20021015	AT 1999-963557	19991216
US 6444807	B1	20020903	US 2001-786965	20010312
US 6365720	B1	20020402	US 2001-868679	20010620
US 20030105321	A1	20030605	US 2002-194516	20020712
PRIORITY APPLN. INFO.:			CH 1998-1922	A 19980921
			EP 1998-811238	A 19981216
			CH 1998-2585	A 19981229
			EP 1999-810107	A 19990209
			WO 1999-EP6653	W 19990909
			WO 1999-EP10006	W

199912  
16

US 2001-786965

A3

200103  
12

## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 132:252454

AB The (na)phthalocyanines (I), with reproducible shades under varying conditions, bear y substituents Y and x substituents SO<sub>2</sub>XZ [each X = O, S, NR; each R = H, Z, CO<sub>2</sub>Q; Q = CR<sub>1</sub>R<sub>2</sub>R<sub>3</sub>, CR<sub>4</sub>R<sub>8</sub>CR<sub>5</sub>:CR<sub>6</sub>R<sub>7</sub>, CR<sub>4</sub>R<sub>8</sub>C.tplbond.CR<sub>9</sub>, CR<sub>4</sub>R<sub>8</sub>R<sub>10</sub>, substituted C2-8 alkyl; R<sub>1</sub>, R<sub>5</sub>-R<sub>7</sub>, R<sub>12</sub> = H, C1-6 alkyl; R<sub>2</sub>, R<sub>3</sub>, R<sub>11</sub> = C1-6 alkyl; R<sub>4</sub>, R<sub>8</sub> = (un)substituted C1-6 alkyl or Ph; R<sub>9</sub> = H, C1-6 alkyl, COR<sub>11</sub>, COC<sub>6</sub>H<sub>4</sub>R<sub>12</sub>, CO<sub>2</sub>R<sub>13</sub>; R<sub>10</sub> = (un)substituted Ph; R<sub>13</sub> = C1-6 alkyl, (un)substituted Ph; each Y = substituent inert to alkylation; each Z = C<sub>n</sub>H<sub>2n</sub>Q<sub>1</sub>; Q<sub>1</sub> = N(CO<sub>2</sub>Q), NHC<sub>2</sub>O<sub>2</sub>Q, OCO<sub>2</sub>Q, SCO<sub>2</sub>Q; n = 2-12; x = 1-4; y = 0-15; (x + y) ≤ 16]. Thus, CuPc was treated with ClSO<sub>3</sub>H, then with SOCl<sub>2</sub>, condensed with ethanolamine, and the resulting tetrakis[N-(2-hydroxyethyl)sulfonamide] was treated with O(CO<sub>2</sub>Bu-tert)<sub>2</sub> in THF at 23° in the presence of 4-(dimethylamino)pyridine to give a blue I (X = NCO<sub>2</sub>CMe<sub>3</sub>, Z = CH<sub>2</sub>CH<sub>2</sub>OCO<sub>2</sub>CMe<sub>3</sub>, x = 4, y = 0), λ<sub>max</sub> 672 nm in CH<sub>2</sub>Cl<sub>2</sub>. The compds. are used as colorants and pigment precursors, especially in light-sensitive compns. for color filters.

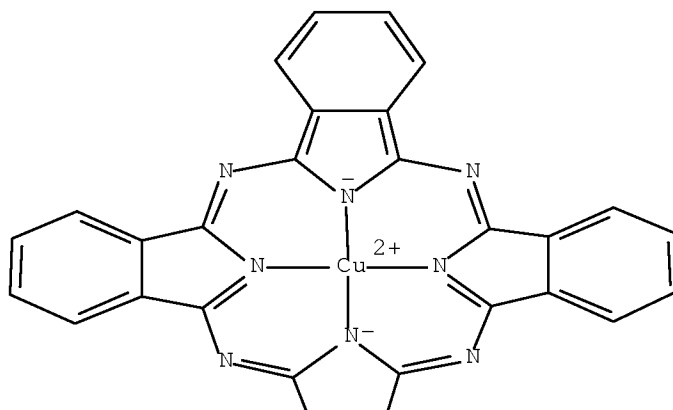
IT 262355-88-4P 262355-89-5P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(substituted phthalocyanines and their use)

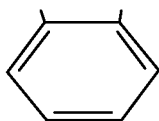
RN 262355-88-4 HCAPLUS

CN Copper, [[[(C,C,C,C-tetraphenoxy-29H,31H-phthalocyanine-C,C,C,C-tetrayl-κN29,κN30,κN31,κN32)tetrakis[sulfonyl[[[(1,1-dimethylethoxy)carbonyl]imino]-2,1-ethanediyl]]tetrakis(1,1-dimethylethyl carbonato)](2-)]- (9CI) (CA INDEX NAME)

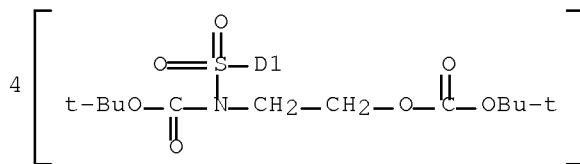
PAGE 1-A



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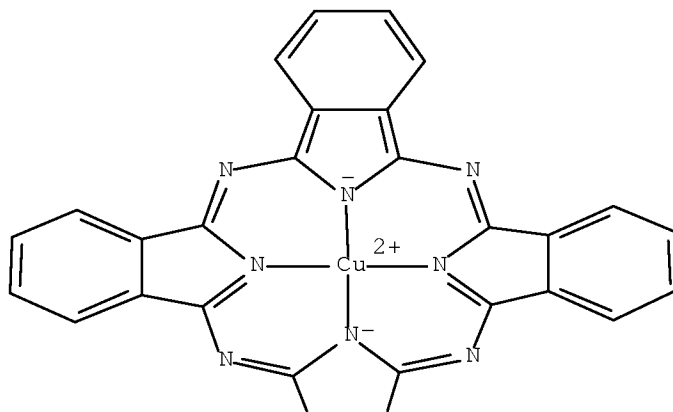


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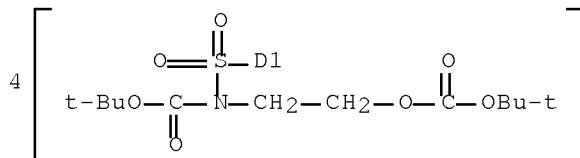
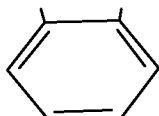


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 tetrakis(1,1-dimethylethyl carbonato)](2-)]- (9CI) (CA INDEX NAME)

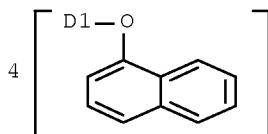
PAGE 1-A



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PAGE 3-A



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 C09D0011-00 [ICS, 7]  
 IPCR G03G0009-09 [I, C\*]; G03G0009-09 [I, A]; B41M0005-00 [I, C\*];  
 B41M0005-00 [I, A]; B41M0005-26 [I, C\*]; B41M0005-26 [I, A];  
 B41M0005-385 [I, A]; B41M0005-39 [I, A]; C07D0487-00 [I, C\*];  
 C07D0487-22 [I, A]; C08K0005-00 [I, C\*]; C08K0005-36 [I, A];  
 C08L0101-00 [I, C\*]; C08L0101-00 [I, A]; C09B0047-04 [I, C\*];  
 C09B0047-24 [I, A]; C09B0047-26 [I, A]; C09D0007-00 [I, C\*];  
 C09D0007-00 [I, A]; C09D0011-00 [I, C\*]; C09D0011-00 [I, A];  
 G02B0005-20 [I, C\*]; G02B0005-20 [I, A]; G02B0005-22 [I, C\*];  
 G02B0005-22 [I, A]; G03F0007-00 [I, C\*]; G03F0007-00 [I, A];  
 G03F0007-004 [I, C\*]; G03F0007-004 [I, A]; G03F0007-029 [I, C\*];  
 G03F0007-029 [I, A]  
 CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and  
 Photographic Sensitizers)  
 ST phthalocyanine pigment shade invariance; photoresist  
 substituted phthalocyanine pigment  
 IT Electrophotographic toners  
 Photoresists  
 (substituted phthalocyanines and their use in)  
 IT 24424-99-5DP, Di-tert-butyl dicarbonate, reaction products with  
 phthalocyaninetetrakis[(amino- or hydroxyalkyl)sulfonamides]  
 262355-85-1DP, reaction products with di-tert-Bu dicarbonate  
 262355-86-2P 262355-87-3P ~~262355-88-4P~~  
~~262355-89-5P~~ 262355-90-8P 262355-91-9P  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered  
 material use); PREP (Preparation); USES (Uses)  
 (substituted phthalocyanines and their use)  
 OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS  
 RECORD (21 CITINGS)  
 REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN  
 THE RE FORMAT



L24 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1998:202698 HCAPLUS Full-text  
 DOCUMENT NUMBER: 128:315186  
 ORIGINAL REFERENCE NO.: 128:62321a,62324a  
 TITLE: Optical recording media containing azo  
 compound-metal complex dyes  
 INVENTOR(S): Kadota, Atsushi; Suzuki, Takahiko; Kanoto,  
 Emiko; Shinkai, Masahiro; Kitagawa, Sumiko  
 PATENT ASSIGNEE(S): TDK Electronics Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 75 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 10081069	A	19980331	JP 1997-21016	199701 20
JP 3411771	B2	20030603		
US 5858613	A	19990112	US 1997-786458	199701 21
PRIORITY APPLN. INFO.:			JP 1996-28646	A 199601 23
			JP 1996-204340	A 199607 15

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB An optical recording media contains an azo compound-metal complex dye which is obtained by reacting a metal compound with an azo compound (I; Q1 = a group of atoms necessary to form an aromatic ring together with the two carbon atoms; Z = group having an active hydrogen; A = C or heteroatom; Q2 = a group of atoms necessary to form an aromatic ring together with A and the two carbon atoms; Q3 = a group of atoms necessary to form an aromatic ring together with A, C, and N atoms; the aromatic ring completed by Q2 and the one completed by Q3 form a condensed ring), 8-phenylazo-8-quinoline (II; R1 - R4 = halo, NH2, alkyl, alkoxy, aryloxy, acyl, aryl, CONH2, alkoxycarbonyl; R1 and R2, R2 and R3, or R3 and R4 are bonded together to form a condensed ring; Z = OH, SH, NH2, CO2H, CONH2, SO2NH2, SO3H; R5 - R10 = H, halo, NO2, cyano, alkyl), or Q4N:NQ5 (Q4 = 8-quinolyl; Q5 = 1H-2-imidazolyl). The central metal of the azo compound-metal complex dye is Co, Mn, Ti, V, Ni, Cu, Zn, Mo, W, Ru, Fe, Pd, Pt, or Al. This optical recording media is capable of recording and regeneration at short wavelength 635-680 nm or two wavelengths, i.e. the short wave length and the conventional wavelength (.apprx.780 nm). It exhibits excellent ~~photoresistance~~ and high sensitivity and solubility and is used in CD-R for high d. recording at the short wavelength and meets specifications of

CD-R Orange Book and is compatible with com. CD or DVD players. Thus, diazotization of 8-aminoquinoline with  $\text{NaNO}_2$  in aqueous  $\text{H}_2\text{SO}_4$  followed by coupling of the resulting diazonium salt with 4-(diethylamino)phenol gave 2-(8-quinolyloxy)-5-(diethylamino)phenol which was dissolved in MeOH and treated with  $\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$  for 5 min followed by salt exchange with ammonium tetrafluoroborate to give the  $\text{Co}^{2+}$ -III complex  $\text{BF}_4^-$  salt (IV). A solution IV of in 2-ethoxyethanol was spin-coated on a polycarbonate substrate to form a dye film of  $500\text{\AA}$  which showed high reflectivity at wide wavelength region of 500–700 nm.

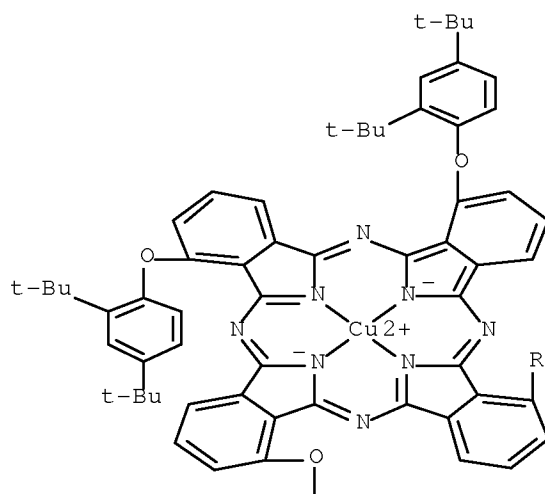
IT 186415-88-3

RL: TEM (Technical or engineered material use); USES (Uses)  
(optical recording media containing azo compound-metal complex dyes)

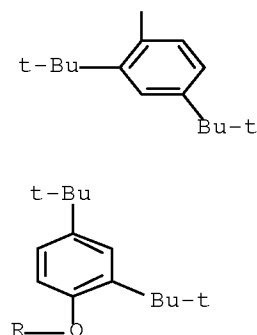
RN 186415-88-3 HCAPLUS

CN Copper, [1,8,15,22-tetrakis[2,4-bis(1,1-dimethylethyl)phenoxy]-29H,31H-phthalocyaninato(2-)- $\kappa\text{N}29,\kappa\text{N}30,\kappa\text{N}31,\kappa\text{N}32$ ]-, (SP-4-1)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



G11B0007-24 [ICS,6]  
 IPCR B41M0005-26 [I,C\*]; B41M0005-26 [I,A]; C09B0045-00 [I,C\*];  
 C09B0045-14 [I,A]; G11B0007-24 [I,C\*]; G11B0007-24 [I,A];  
 G11B0007-244 [I,A]  
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 IT ~~186415-88-3~~ 186416-14-8 206562-29-0 206562-33-6  
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 206562-49-4 206562-51-8 206562-53-0 206562-59-6 206562-62-1  
 206562-64-3 206562-65-4 206562-68-7 206562-71-2 206562-74-5  
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 RL: TEM (Technical or engineered material use); USES (Uses)  
 (optical recording media containing azo compound-metal complex dyes)  
 OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS  
 RECORD (5 CITINGS)

L24 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1994:41990 HCAPLUS Full-text  
 DOCUMENT NUMBER: 120:41990  
 ORIGINAL REFERENCE NO.: 120:7549a,7552a  
 TITLE: Dyes for color filters, photosensitive  
~~resist~~ resin compositions containing the  
 same, and color filters  
 INVENTOR(S): Karasawa, Akio; Itoh, Hisato; Sugimoto, Kenichi  
 PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan  
 SOURCE: Eur. Pat. Appl., 38 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 546856	A2	19930616	EP 1992-311343	199212 11
EP 546856	A3	19940525		
EP 546856	B1	20010822		
R: DE, FR, GB, NL				
JP 05271567	A	19931019	JP 1992-327842	199212 08
EP 832942	A2	19980401	EP 1997-118306	199212 11
EP 832942	A3	20000531		
R: DE, FR, GB, NL				
PRIORITY APPLN. INFO.:			JP 1991-328474	A 199112 12
			EP 1992-311343	A3 199212 11

AB Dyes suitable for use in the fabrication of color filters contain one or more  
 photopolymerizable substituents which may preferably be represented by the  
 following formula: D-(A-Yn1)n2 wherein D represents a chromophoric nucleus, A

denotes a connecting group, Y means the photopolymerizable group, n1 is 1-10000, and n2 stands for an integer of 1-10. Also described are photosensitive ~~resist~~ resin compns. containing the dyes as well as color filters fabricated by curing the photosensitive ~~resist~~ resin compns.

IT 151605-07-1 151605-29-7

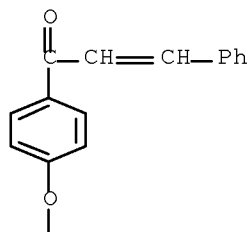
RL: USES (Uses)

(photopolymerizable dye)

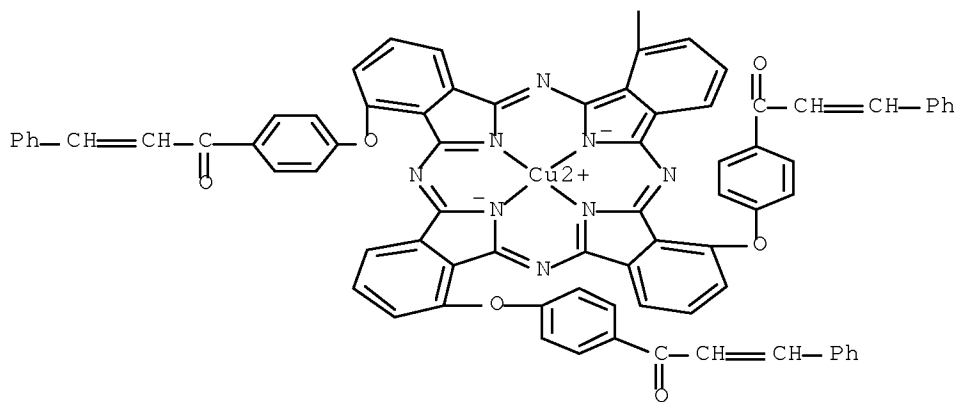
RN 151605-07-1 HCAPLUS

CN Copper, [[1,1',1'',1'''-[29H,31H-phthalocyanine-1,8,15,22-tetrayltetrakis(oxy-4,1-phenylene)]tetrakis[3-phenyl-2-propen-1-onato]](2-)-N29,N30,N31,N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

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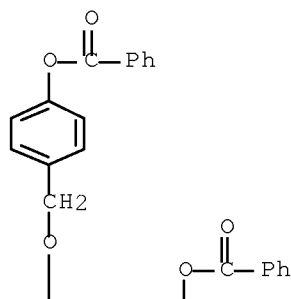
PAGE 2-A



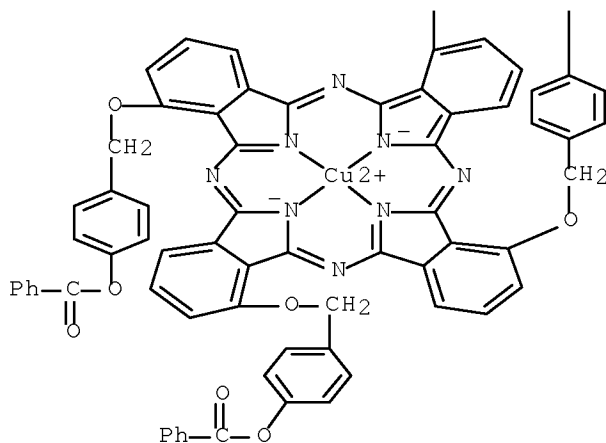
RN 151605-29-7 HCAPLUS

CN Copper, [[29H,31H-phthalocyanine-1,8,15,22-tetrayltetrakis(oxymethylene-4,1-phenylene)tetrabenzoato]](2-)-N29,N30,N31,N32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

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IPCI G03F0007-027 [ICM,5]; G03C0007-12 [ICS,5]; G03C0007-04 [ICS,5,C\*];  
 C09B0069-10 [ICS,5]; C09B0069-00 [ICS,5,C\*]  
 IPCR C09B0069-00 [I,C\*]; C09B0069-10 [I,A]; G02B0005-20 [I,C\*];  
 G02B0005-20 [I,A]; G03F0007-00 [I,C\*]; G03F0007-00 [I,A];  
 G03F0007-027 [I,C\*]; G03F0007-027 [I,A]  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 ST photopolymerizable dye photoresist color filter  
 IT Resists  
 (photo-, photopolymerizable dye for)  
 IT 81-42-5D, reaction products with polyvinyl alc. acetals 147-14-8D,  
 reaction products with polyvinyl alc. acetals 2478-67-3D, reaction  
 products with polyvinyl alc. acetals 9002-89-5D, reaction products  
 with 4-(2-(4-(N-butylpyridium)ethenyl)benzaldehyde bromide, copper  
 phthalocyanine, and (di)(amino)(hydroxy)(di)chloroanthraquinones

16474-11-6 82964-44-1D, cyclic acetals with polyvinyl  
alc.-reaction products with copper phthalocyanine and  
(di)amino(hydroxy) (di)chloroanthraquinones 151321-24-3

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RL: USES (Uses)

(photopolymerizable dye)

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RECORD (2 CITINGS)

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E US2006-535373/AP

E US2007-79566/AP

E WO2007-US79566/AP

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